

## SolarArray Combiner

For large scale grid-tied PV systems, a DC combining device is installed between the PV arrays and the inverters to minimize the cable length, increase reliability and stability, and also simplify maintenance by reducing the connections between PV modules and the inverter. The DC Combiner box achieves this by grouping multiple source circuits from a PV array into a single DC Source which is then fed directly into the inverter. Beyond this grouping function the DC combiner also includes protection devices to significantly increase long term reliability for the PV system as a whole.

### SolarArray combiner-1 Features:

- Meet the basic features of PV array combiner box
- Positive feed fuse for each string of PV array and anti-reverse function
- Lightning proof protection
- IP65 reinforced polyester enclosure for 2,4,6,8 string version
- IP65 painted steel enclosure for 10,12,16 string version



### SolarArray combiner-2 Features:

- Positive and negative fuses for each string of PV array, overvoltage protection and anti-reverse function
- Data collection function: Real-time monitoring and display of the string input current and output voltage
- Equipped with RS485 communication port
- Positive and negative feed lightning-proof protection after input grouping
- IP65 reinforced polyester enclosure for 6,8 string version
- IP65 painted steel enclosure for 10,12,16 string version



# Samil SolarArray Combiner

# Model No: SAC Series

## Datasheet

Model	SAC-2C-A1	SAC-4C-A1	SAC-6C-A1	SAC-8C-A1	SAC-10C-A1	SAC-12C-A1	SAC-14C-A1	SAC-16C-A1
Max. input strings number	2	4	6	8	10	12	14	16
Input cable size	4mm <sup>2</sup>	4mm <sup>2</sup>	4mm <sup>2</sup>	4mm <sup>2</sup>	4mm <sup>2</sup>	4mm <sup>2</sup>	4mm <sup>2</sup>	4mm <sup>2</sup>
Output cable size	≥6mm <sup>2</sup>	≥10mm <sup>2</sup>	≥16mm <sup>2</sup>	≥25mm <sup>2</sup>	≥35mm <sup>2</sup>	≥35mm <sup>2</sup>	≥50mm <sup>2</sup>	≥70mm <sup>2</sup>
Grounding cable size	≤16mm <sup>2</sup>	≤16mm <sup>2</sup>	≤16mm <sup>2</sup>	≤16mm <sup>2</sup>	≤16mm <sup>2</sup>	≤16mm <sup>2</sup>	≤16mm <sup>2</sup>	≤16mm <sup>2</sup>
Max. output current	20A	40A	60A	80A	100A	120A	140A	160A
Number of SPD	3	3	3	3	3	3	3	3
Ingress protection	IP65	IP65	IP65	IP65	IP65	IP65	IP65	IP65
Output Water-proof terminal	PG13.5	PG13.5	PG13.5	PG16	PG21	PG21	PG29	PG29
Humidity	0-99%	0-99%	0-99%	0-99%	0-99%	0-99%	0-99%	0-99%
Cooling method	Natural cooling	Natural cooling	Natural cooling	Natural cooling	Natural cooling	Natural cooling	Natural cooling	Natural cooling
Material	polyester	polyester	polyester	steel	steel	steel	steel	steel
Operating temperature range	-30°C-70°C	-30°C-70°C	-30°C-70°C	-30°C-70°C	-30°C-70°C	-30°C-70°C	-30°C-70°C	-30°C-70°C
Dimension (W*H*D)[mm]	280×280×130	400×300×150	400×300×150	380×380×210	600×380×210	600×380×210	600×380×210	600×380×210
Weight(kg)	8	10	10	18	18	18	18	18

Model	SAC-6C-A2	SAC-8C-A2	SAC-10C-A2	SAC-12C-A2	SAC-14C-A2	SAC-16C-A2
Max. input strings number	6	8	10	12	14	16
Input cable size	4mm <sup>2</sup>	4mm <sup>2</sup>	4mm <sup>2</sup>	4mm <sup>2</sup>	4mm <sup>2</sup>	4mm <sup>2</sup>
Output cable size	≥16mm <sup>2</sup>	≥25mm <sup>2</sup>	≥35mm <sup>2</sup>	≥35mm <sup>2</sup>	≥50mm <sup>2</sup>	≥70mm <sup>2</sup>
Grounding cable size	≤16mm <sup>2</sup>	≤16mm <sup>2</sup>	≤16mm <sup>2</sup>	≤16mm <sup>2</sup>	≤16mm <sup>2</sup>	≤16mm <sup>2</sup>
Max. output current	60A	80A	100A	120A	140A	160A
Number of SPD	3	3	3	3	3	3
Ingress protection	IP65	IP65	IP65	IP65	IP65	IP65
Output Water-proof terminal	PG13.5	PG16	PG21	PG21	PG29	PG29
Humidity	0-99%	0-99%	0-99%	0-99%	0-99%	0-99%
Cooling method	Natural cooling	Natural cooling	Natural cooling	Natural cooling	Natural cooling	Natural cooling
Material	polyester	steel	steel	steel	steel	steel
Operating temperature range	-30°C-70°C	-30°C-70°C	-30°C-70°C	-30°C-70°C	-30°C-70°C	-30°C-70°C
Dimension (W*H*D)[mm]	400×500×200	400×500×210	600×600×210	600×600×210	600×600×210	600×600×210
Weight(kg)	12	22	22	22	22	22